

powers. Before their occurrence we were deterred from abstracting blood, in consideration of her enfeebled health previous to, and at the period of, her admission; but their presence showed a necessity for the daily abstractions of blood she underwent without regard to the strength of the pulse; and had this course of treatment been practiced earlier, it is likely the complication might have been prevented.

Frankford Asylum, June, 1837.

ART. VII. *Observations respecting Smyrna and its environs.* By
G. R. B. HORNER, Surgeon U. S. frigate United States.

Smyrna, the grand emporium of Turkey in Asia, contains about 150,000 souls, and is situated in lat. $38^{\circ} 26' N.$, and in long. $27^{\circ} 7' E.$, from Greenwich. It is built at the head of a beautiful gulf, bearing the same name, partly on the side of a very lofty hill meriting the epithet of a mountain, and partly on a plain extending for five or six miles in an easterly direction to the foot of a high ridge of mountains bounding the gulf on the north and the east. Through this plain flows the Meletis, a rapid and crystal stream, which tradition states to have been the favourite resort of the illustrious Homer, to whom Smyrna boasts she gave birth. The plain having a rich alluvial soil, being in a high state of cultivation, producing a vast quantity of vegetable matter, and being constantly in a state of great humidity, either from rain, snow, the Meletis, or from irrigation, may be justly termed unhealthy, as it must be an abundant source of malaria.

Between the mountains, overhanging the gulf on the north and its waters, is an extensive plain, which is in part finely cultivated, and in part overflowed and converted into pans for the manufacture of the muriate of soda, immense pyramids of which at all seasons may serve for landmarks to vessels navigating the gulf.

The face of the country on the west and south sides of the gulf correspond with that on the east and north, being marked by lofty mountains, overlooking alluvial and fertile plains. At the base of one of the mountains, on the south side, is a hot spring, of great celebrity; and some miles to the west of this one, near the town of Dourlack, is a sulphur spring, the waters of which are much esteemed by the inhabitants of the vicinity and those of Smyrna. The want of accommodations, however, prevent persons from resorting much to these springs.

The gulf being so completely pent up by mountains, the evaporation from it is very great, both during summer and winter. The water evaporated in the day is either precipitated at night, or condenses into clouds, which obscure the mountains, cover them with snow, or drench them and the plains with copious showers.

During the summer the embat, or sea breeze, blows with great regularity, from ten o'clock in the morning until six o'clock in the afternoon; and with such force, that the landing even in the city is rendered by the agitation of the water difficult and somewhat dangerous. In the winter the embat seldom occurs, and when it does, is extremely light; but in place of it the wind blows from various quarters, frequently from the north-east, and then is accompanied by heavy falls of rain, hail and snow, and the formation of ice. This wind is keen, damp, piercing, and quite as unpleasant as it is in the United States. Its coldness and other bad qualities may be ascribed principally to its passing over the mountains bounding the gulf on the north and east, but more especially to its sweeping across the still higher chain of Olympus, which runs along the south border of the sea of Marmora, and which I have seen covered with snow in August.

The climate of Smyrna, in the summer and fall, is hot and dry; in the winter and spring, damp and cold; but during the latter seasons there are great vicissitudes of weather, as, for instance, in the last month, January, the thermometer varied from thirty-two to sixty-six degrees. The air was of the former temperature while the wind was from the north-east, and of the latter temperature when it was blowing from the south-east. Last winter the thermometer was twelve degrees below the freezing point. I was informed by one of the citizens that the snow has fallen eighteen inches in depth, and remained for three weeks on the ground. The general failure of the crops of oranges, grapes and figs, last year, not only in quantity but quality, was owing to the severity of the winter.

Hospitals.—They are eight in number, viz. the Dutch, Austrian, French, English, Greek, Armenian, Turkish, and the Catholic and Protestant Hospital.

The Dutch Hospital was founded in 1786, and repaired in 1834. It is a neat stone building, plastered over; is one story high, forms an oblong square, has a well paved court, into which all the doors and windows open, and is large enough to accommodate forty or fifty patients. In front of it is a large yard, filled with bay and orange trees; and at the back of it is a handsome cemetery, for the interment not only of those who die in the house, but for that of any Dutch citizen. In the hospital is a dispensary for the benefit of its patients,

and that of all the poor, whether Christians or Mahometans, who may apply for medical aid. Both the hospital and dispensary are under the patronage of the Dutch consul, Mr. Vanlennop, a most worthy and benevolent man, and are attended by Dr. Morpogo, a native of Trieste, who is distinguished as an oculist, and receives for his services a salary of 150,000 piastres a year, which amount to about 700 dollars.

The Austrian Hospital was founded in the year 1788. It is in the heart of the city, and near the Dutch, English, and Greek Hospitals. It is three stories high, has a court, verandas to each story, a terrace on one side, and is capable of accommodating a hundred patients. It is kept in good order, is neat, and has the appearance of having been recently erected. It is supported by the Austrian government, and intended for the reception of all Austrian subjects. The attending physician is Dr. Amber, who was formerly in the navy.

The French Hospital is situated at the eastern end of the city, near the harbour, and consists of two buildings, standing in separate lots or yards, each of which occupies about a half acre of ground. One of these houses is for officers; the other for seamen, &c. The former is new, two stories high; is built of wood, brick and plaster, and about fifty feet square. Adjoining its yard is a handsome garden of nearly the same extent. The latter building was an old Turkish residence, and was purchased nine years ago. It consists of a large three story house, with two wings extending back, and is built entirely of wood. It contains a kitchen, an apothecary's shop, a bath room, chapel, and several wards of good size. The two buildings might perhaps accommodate a hundred sick, but now have only sixteen—three officers and thirteen sailors. Each patient is charged a franc daily for his support, provided he is able to pay; but any poor French subject is supported gratis. The institution is under the direction of the French consul, and attended by Dr. Pecor, of the navy.

The English Hospital stands on the opposite side of the street to the Dutch. It is made of stone, is two stories high, has four rooms below and four above, and a yard in front and at the back. In the back yard are some small out-houses, and several handsome tombs of British subjects. This Hospital was founded in 1785, is supported by the English government, and is intended for sailors in the navy, and also for those in the merchant service. It was for a long time under the care of Dr. Clark, of the navy, who was an eminent physician of Smyrna; but he having lately returned to England, it is now attended temporarily by Dr. Icard, a Frenchman by descent, who has a high reputation, and is one of the most distinguished of his profession

in the city. Dr. Evans, surgeon of H. B. M. ship Tribune, now there, it is said, will be appointed in the place of Dr. Clark, and will receive, besides his half pay, the usual salary of £300 sterling per annum.

The Greek Hospital was erected in the year 1779 by the Greek population, is maintained by them, and is for their exclusive benefit. It is an extensive building, being about one hundred feet wide and two hundred in length; is two stories high, and has a court paved with stone flags. In the first story are the cells for maniacs, the dispensary, kitchen, wash rooms, and some apartments for the paupers. In the second story are the medical and surgical wards, which are kept in neat order, and arranged after the European manner. The bedsteads consist of two wooden stands, with two boards laid across them. The beds are formed of sheets, blankets, coverlets, and mattresses, well stuffed with wool, and are surrounded by calico curtains, hanging from frames suspended by cords from the ceiling. Each bed having a distinct set of curtains, any patient can seclude himself from the view of his neighbours, and shut out the glare of candle and daylight—all which things are desirable to a sick person, and not to be obtained in our Hospitals. Were this plan adopted in them, it would be certainly thought an improvement by the sick. The chief articles of diet are rice, bread, and stewed meats. All poor, superannuated and disabled Greek citizens, find an asylum in this institution. Its inmates are three hundred and fifty in number, of whom fifty are insane. The attending physician is Dr. Marsganar, one of the most noted Greek practitioners. At the back of the Hospital are a cemetery, a free school for Greek girls, and a pest-house, in which are put the patients affected with plague. High walls separate the pest-house from the other buildings. It is a large stone house, of a gloomy aspect, having few doors or windows, and neither painted nor plastered. It is appropriated to the use of the Greeks alone.

Of the Armenian Hospital I will say but little, for it is hardly worthy of notice. It stands in a close, confined part of the Armenian quarter, and is composed of four frame houses, set around a small lot, the best and next to the largest of which is used as a chapel. This is a similar institution to the Greek Hospital, being designed for the infirm and poor Armenians, but is much inferior in every respect; being illy arranged, wanting cleanliness, and having small, badly furnished apartments. The beds are miserable pallets, spread on the floor. It contains some old men and women, a few maniacs, and twenty patients. The most remarkable of its inmates is a man who has lost his nose, and wears in place of it a piece of perforated tin,

resembling a nutmeg grater. Dr. Ricopoli, a native of Scio, and who was educated in Italy, is the physician.

The Turkish Hospital is situated a mile to the west of the city, on the south side of the harbour, and in a beautiful level valley formed by two hills. The Hospital consists of two buildings, with a large court between them, and connected by very lofty walls. In the front wall is a large gateway, with an inscription in Arabic characters above it, and covered by a pretty portico, supported on four pillars. One of the buildings is in an unfinished state; the other has been built and used for years. The latter is eighty feet in length, forty in width, is two stories high, has three rooms, with grated windows in the first story, and in the second one a spacious entry, with Venetian blinds. On the sides are two large and well ventilated apartments, which have their ceilings painted in broad red, white and blue stripes, and their floors higher at one end than at the other. At the south end of this building is a white marble fountain; and on its west side, two gardens, containing together a couple of acres. In the garden farthest from the Hospital, is a pest house, which is a small stone edifice, painted red, and partly dilapidated. It has not been used for several years, and is now better suited for the dead than the living. The Hospital is deserted, save by the keeper, an aged Turk and his family, who occupy the unfinished part. The sick of the army, who were formerly sent to it, are now kept in the new barracks, which are large enough for two thousand men, but are occupied by only eight hundred. Dr. Floquier, a Frenchman, is the physician to both the former and latter place, and is in the service of the governor, Hussan Bey. This Hospital is not a receptacle for the poor, blind and infirm of any class, not even of the Turks; for this nation leave the care of such persons to Providence, and view their sufferings with indifference, believing that they are the manifestations of divine will and the decrees of Fate.

On the left or western side of the Meletis, near the caravan bridge, and about a mile from the city, is the Catholic and Protestant Hospital, or the European lazaretto. It was founded in 1815, on a small scale; but at this time is composed of twenty houses, one story high, built around a court of an oblong shape, containing nearly an acre, and planted with rows of trees. These houses are made of frames, filled in with mortar and sun-burnt bricks, rendered stronger by having been worked up with straw. They have roofs of fluted brick tile, contain one or two rooms, do not communicate with each other, and have all their doors and windows opening into the court. I found some masons and carpenters busily engaged in finishing several houses

lately put up. To protect the walls from rain, and increase their neatness, a coat of plaster is spread over them exteriorly and interiorly. Water is supplied from the river and two wells in the court. This establishment was formed and is supported by the Frank population. It is designed for the reception and quarentining of all poor Catholics and Protestants who have been exposed to the plague. For the information of such persons and others, the following inscription has been put over the outside of the gate. "*Hospice destine aux pauvres compromis de peste—Catholique et Protestant.*" On the same side of the Meletis, and a few rods lower down it, the Greeks are engaged in the construction of a similar institution to that last mentioned. They have a lot of about two acres of ground, enclosed by a high stone wall, and are hauling materials for the erection of buildings. For present use there are ten small huts of plank standing about the lot and against the wall; they were occupied by from twenty to thirty men, women and children, who had been brought there from Bournabat, an adjacent village, in which the plague was prevailing. They had lost some of their relatives by the disease, and were put in quarantine until suspicions of their having been infected should be removed. They were not strictly confined, but were allowed to come without the gate, sit in the road, and converse with passengers and persons on the opposite bank of the stream, which, there, is not more than twenty feet across.

Bagnios. There are several of them. The principal one is that close by the bazaars. The description of this one will answer for all the others. It is a spacious edifice, divided into two grand apartments, communicating by the doors of a room between them, and having vaulted ceilings, formed by two domes, composing the roof. In one of these apartments are ottomans, shelves loaded with towels and quilted coverlets, and a bar where the keeper sits to receive pay and deal out refreshments. The other apartment is for bathing. It has a white marble floor, raised to a platform in the centre; a small chamber in each corner; fountains of cold and hot water on its sides; and has its ceiling pierced by numerous square holes, admitting light and letting out the vapour. Beneath the floor are the furnace and boilers. Water is supplied by wooden pipes passing under the city. A person wishing to bathe enters the bagnio by a flight of granite steps, immediately on the street, and is forthwith surrounded by the telackes or bathers, who are naked, save having their loins covered by aprons. He chooses a telacke and ottoman. Assisted by the telacke he undresses, his clothes are deposited upon the ottoman, a towel is tied about his waist, and he is led into the bath. Oppressive heat and a sense

of suffocation seize him, from being plunged from the fresh air into an atmosphere charged with the dense steam arising from the heated water issuing from the fountains and running over the floors. Lying down on the platform, the elevated sides of the floor, or entering one of the chambers and closing the door by a curtain he soon breaks out into a profuse perspiration, and is relieved from the sense of heat and suffocation. The telacke then comes and with his right hand covered by the sourran, a black hair bag, rubs him from head to foot, rolls up the old cuticle in enormous cylinders, oftentimes as large as crow quills, and three inches long; next lathers him with soapsuds, cleans his head of scurf, then washes him by dashing basins of water taken from a fountain; and, if it is desired, performs the operation of ovalar, or twisting and cracking all the joints of the extremities. The bathing done, the telacke wipes him as dry as the steam will permit; puts a towel around his loins, gives him a pair of clog slippers, and conducts him to his ottoman. He there lies down, envelopes himself in a coverlet, and remains until cool and perfectly dry. Then dressing, he reclines or sits cross-legged on his couch, smokes a pipe, drinks a cup of coffee, calls to a servant and deposits his reckoning on a small waiter handed him. The price of the bath is according to the means of the person taking it, and varies from five to a hundred piastres; that is, from a quarter to five dollars; although, ordinarily, it does not exceed one dollar. Any amount exceeding the last sum may be considered a donation.

Apothecaries. There are several who keep shops well furnished with drugs and medicines of every kind, and at reasonable prices. Most of the medicines are brought from France. The best rhubarb comes from Russia; opium is scarce, and has almost ceased to be an article of export from Smyrna. For large quantities orders are sent to Constantinople; that now being the market for it, since the opium trade has been monopolized by the Sultan, whose agents pay the cultivators the price established by him, collect and send it to the store houses of the capital. This price being very reduced, the cultivators make little or no profit from the article, and raise less of it every year. Of course its value is gradually increasing. Its present price at Smyrna, I was informed, is from four and a half to five dollars a pound, and must continue to increase as long as the Sultan monopolizes its sale. The Turks seem to be leaving off the consumption of opium, and to be taking to that of wine and ardent spirits, great quantities of which are imported. I have met with only one of them who was an opium chewer. He was Hussan Bey's jester, who showed more nervousness than he displayed wit.

Physicians. Of these, besides those already mentioned, are Dr. Mizato, Dr. Raffinesque, an Italian, and many others, natives and foreigners. All the regular practitioners have been educated in France and Italy, there being no means of instruction in Smyrna, or any other part of the Ottoman empire.

Diseases. Having the above account concerning the situation of Smyrna, and of the fertile plains in its vicinity, it is hardly necessary I should state that among its most common diseases are miasmatic fevers, especially intermittents. The crew of this ship has fortunately, from being there in the summer time, escaped them; but that of the John Adams, the vessel in which I made my first cruise to the Mediterranean, suffered sorely from them, while she was engaged in convoying vessels from Smyrna during the summer of 1833. In the month of August of that year, she had so many cases aboard, that it was found necessary to take refuge in the harbour of Milo, and remain for three weeks. The plague has prevailed at Smyrna four times within the last seven years, but has not been by any means so destructive as has been stated. Before paying my last visit there I heard at Malta that two hundred persons were dying at the former place every day; and when we arrived I ascertained that there were a few straggling cases in the city and neighbourhood, and not more than two hundred of them had occurred from the beginning of the fall; the time when the disease last broke out. If it is prevalent the wealthy inhabitants shut themselves up in their houses, which have courts, and undergo a voluntary quarantine, holding no communication with one another, save what cannot be avoided, and receiving their provisions through water, which is thought a purifier. Cats at this period are forbidden access to their houses; people believing that these animals have communicated the plague from one person to another. The physicians appear to know as little of this disease from personal observation, as those of countries where it is unknown; for none of them will attend a case, because, if he should, he would not be allowed to attend patients affected with any other malady. The treatment of plague then, must necessarily be bad to an extreme, and is entirely empirical. Those sick of it are often carried into the fields, and placed beneath tents, even in the coldest weather, as happened last month. Having to suffer from improper treatment, cold, hunger, thirst, and contend with a violent disease, few of them live to see their homes. The treatment such, who can be surprised at the great mortality? Small-pox, consumption, catarrhs and other affections of the respiratory organs, may be, with great propriety, classed among the most common maladies of Smyrna. Small-pox is ever

there, vaccination being so little and imperfectly practiced. No intercourse can be held with this city by a man-of-war, particularly by one of large size, and having consequently a numerous crew, without great danger of getting this pest aboard. The Constitution got it there last winter, and the crew of this ship are now infected, three cases having occurred and more being reported. The first case terminated fatally, being of the confluent kind, and connected with catarrh. The frigate putting to sea the day after the occurrence of this case, I was unable to prevent farther infection by sending it ashore. The ship being still at sea all susceptible persons aboard will probably be infected.

We arrived at Smyrna with fifteen on the sick list, and left it with ninety; the largest list I have ever known in any vessel to which I belonged. Of this number eighty were affected with catarrh of the severest nature, having been attended with high fever, sometimes with delirium, and mostly with intense headache and rheumatic pains. A seaman who had been phthisical for some time, but able to attend to duty, died of consumption four weeks after his admission upon the list.

Notwithstanding Smyrna abounds in pulmonary complaints, and many of its inhabitants are annually carried off by phthisis pulmonalis, it is becoming a rendezvous for people having this disease. A good many have resorted there from the United States; and I was told of four or five who have lately died. I can hardly conceive a more striking instance of folly than for a patient thus to leave his friends, give up the comforts of home, traverse five thousand miles of sea and ocean, undergo the dangers and hardships of such a voyage, suffer the anxieties caused by absence from those most loved, and fix himself in a strange city, which has a worse climate than that of a great portion of his native country; which has no good hotels or other houses for travellers; has damp, muddy, filthy and narrow streets, whereupon the sun never shines; is constantly afflicted with plague, and abounds in the very disease with which he is afflicted.

Port Mahon, Feb. 1837.